AMSAT News Service Weekly Bulletins
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AMSAT NEWS SERVICE
ANS-310

ANS is a free, weekly, news and information service of AMSAT North America, The Radio Amateur Satellite Corporation. ANS reports on the activities of a worldwide group of Amateur Radio operators who share an active interest in designing, building, launching and communicating through analog and digital Amateur Radio satellites.

Please send any amateur satellite news or reports to:
ans-editor@amsat.org

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SB SAT @ AMSAT $ANS-310.01
AMSAT Board of Directors Names Senior Officers for 2011-2012

AMSAT News Service Bulletin 310.01
>From AMSAT HQ SILVER SPRING, MD.
November 6, 2011
To All RADIO AMATEURS
BID: $ANS-310.01

Election of AMSAT's Senior Officers was one of the first orders of business to be settled once the AMSAT Board of Directors meeting opened on November 3, prior to the start of the 2011 AMSAT Space Symposium held in San Jose, California.

The following positions were voted upon and filled:

Barry Baines, WD4ASW President
Drew Glasbrenner, KO4MA Vice-President Operations
Gould Smith, WA4SXM Vice President User Services
Tony Monteiro, AA2TX Vice-President Engineering
Alan Biddle, WA4SCA Secretary
Keith Baker, KB1SF/VA3KSF Treasurer
Martha Saragovitz Manager

The following Senior Officer positions remained open at this time awaiting appointments:
Executive Vice President
Vice-President Human Spaceflight
Vice-President Marketing

The AMSAT Board of Directors elected on September 15 include:
Barry Baines, WD4ASW
Alan Biddle, WA4SCA
Dr. Thomas A. Clark, K3IO
Drew Glasbrenner, KO4MA
Lou McFadin, W5DID

Tony Monteiro, AA2TX
Gould Smith, WA4SXM
Mark Hammond, N8MH (First Alternate)
Patrick Stoddard, WD9EWK (Second Alternate)

Other items on the Board of Directors agenda included:

+ Reports from the President, Secretary, and Treasurer
+ Budget approval for 2012
+ Technical Issues to be addressed included:
  o Regulatory Issues Affecting AMSAT (ITAR and HR607)
  o ARISSat-1
  o Project Fox
  o ARISS and ARISS-International
  o AMSAT Lab Update/Storage
  o Operations Team Report
  o User Services Report

Details of these reports will be presented in upcoming ANS bulletins and in The AMSAT Journal.

[ANS thanks the AMSAT Board of Directors for the above information]

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SB SAT @ AMSAT $ANS-310.02
Project OSCAR and AMSAT Commemorate 50th Anniversary of OSCAR 1

AMSAT News Service Bulletin 310.02
>From AMSAT HQ SILVER SPRING, MD.
November 6, 2011
To All RADIO AMATEURS
BID: $ANS-310.02

The AMSAT 2011 AMSAT Space Symposium coincides with the celebration of the 50th anniversary of OSCAR 1.

Bob Allison, WB1GCM of ARRL's Technical Lab led the effort to refurbish the OSCAR 1 prototype on display at ARRL headquarters. With the help of Symposium Banquet Speaker and OSCAR 1 developer Lance Ginner, K6GSJ, Bob and his team got OSCAR 1 operational again.

The refurbished OSCAR-1 was on display at the ARRL exhibit area at the 2011 Dayton Hamvention. The OSCAR 1 prototype was again on display during the AMSAT Symposium where everyone was able to once again hear the CW transmissions (now managed by a PIC controller) in the 145 MHz band.

Additionally, the AMSAT News Service will re-run the weekly Project OSCAR Newsletters to commemorate the 50th anniversary of OSCAR 1. During the November/December 2011 time frame you will be able to share the excitement of the launch campaign that started it all 50 years ago.

Watch for the re-publication of the Project OSCAR Newsletters in the AMSAT Journal. The Newsletters were hand-typed back in 1961. Thanks to Don Ferguson, KD6IRE for scanning the original documents announcing OSCAR 1.

[ANS thanks Project OSCAR and the 2011 Symposium Committee for the above information]

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SB SAT @ AMSAT $ANS-310.03
ARISSat-1/KEDR Team Challenge to Catch the Last ARISSat-1 Telemetry

AMSAT News Service Bulletin 310.03
>From AMSAT HQ SILVER SPRING, MD.
November 6, 2011
To All RADIO AMATEURS
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Now that the submissions are complete for the Chicken Little Contest AMSAT is announcing a new contest to "Catch the Last ARISSat-1 Telemetry."

With luck, we will have real time data to go along with the final reentry. While telemetry sent by e-mail is valuable and requested, this contest will be judged solely on data sent through the official ARISSatTLM programs directly to the Internet telemetry server.

How do you enter? Simple. Just submit ARISSat-1 telemetry over the Internet using either ARISSatTLM telemetry program. You can use the PC version or the MAC version of ARISSatTLM and you are automatically eligible.

Are there separate categories for entrants? No.

How is the winner determined? The call, or name, in the last block of data received by telemetry server wins.

How will the winner be announced? Via the usual AMSAT News Service, and on the Chicken Little Contest site.
(see: http://www.amsat.org/amsat-new/ARISSat/ARISSatContest)

If ARISSat-1 fails sometime before reentry, does it count? Yes! Engineering data is essential input for future projects!

What do I get if I win? A certificate in PDF format suitable for framing, and the gratitude of the ARISSat-1/KEDR team.

In short, just keeps those telemetry blocks flowing!

Remember: you can see the latest ARISSat-1 telemetry at http://www.arissattlm.org/live

[ANS thanks the ARISSat-1/KEDR Team for the above information]

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SB SAT @ AMSAT $ANS-310.04
Asteroid Ping Experiment November 8 For Suitably Equipped Stations

AMSAT News Service Bulletin 310.04
>From AMSAT HQ SILVER SPRING, MD.
November 6, 2011
To All RADIO AMATEURS
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On Tuesday, November 8, at 6:28 p.m. EST, an asteroid the size of an aircraft carrier will soar past our planet at a distance closer than the Moon and NASA scientists will be watching! Suitably equipped amateur stations may enjoy looking over their shoulder ...

The 400 meter diameter near-Earth asteroid 2005 YU55 will be making a 0.85 lunar distance flyby of Earth on November 8. Michael Busch at the UCLA Department of Earth and Space Sciences notes this may an opportunity for amateur satellite operators to observe the fly-by.

UCLA will be conducting an extensive campaign of radar observations with the Arecibo Observatory, the Deep Space Network Goldstone facility, and the Green Bank Telescope and the Very Long Baseline Array.

Because YU55 will be so close to Earth, its radar echo will be detectable with even small antennas (~1 m^2). YU55's echo will be a slowly drifting signal with a bandwidth of ~1 Hz within a few kHz of 2380 MHz or 8560 MHz.

This will present amateur radio operators an opportunity to receive the radar reflections off of the asteroid because of the big dish, big signals originating from Arecibo and Goldstone.

On November 8, 2011, 19:15 - 19:30 UTC, Arecibo will be transmitting a continuous wave tuned to put the asteroid's echo at a constant 2380.000000 MHz at the Green Bank Telescope. Observers elsewhere on Earth will see the echo within 2 kHz of 2380 MHz, Doppler-shifted by the Earth's rotation. It will be slowly drifting in frequency and have a bandwidth of ~0.6 Hz.

On November 9, 2011, 01:30 - 02:00 UTC, the Goldstone Deep Space Network facility will be be transmitting a continuous wave tuned to put the asteroid's echo a constant 8560.000000 MHz at a second antenna at the Goldstone site. Other observers may see the echo shifted by as much as 6 kHz, and it will have a bandwidth of ~2 Hz.

Initial information can be found on-line at:
http://echo.jpl.nasa.gov/asteroids/2005YU55/2005YU55_planning.html

UniverseToday posted an article about this event at:
http://tinyurl.com/438kznj

[ANS thanks Michael Busch, UCLA Department of Earth and Space Sciences for the above information]

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SB SAT @ AMSAT $ANS-310.05
Montana State University Explorer-1 Prime Cubesat Featured in Press

AMSAT News Service Bulletin 310.05
>From AMSAT HQ SILVER SPRING, MD.
November 6, 2011
To All RADIO AMATEURS
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Space-Travel.com posted a story about Montana State University's Explorer-1 Prime Cubesat launched on October 28 from Vandenberg AFB in California. (see: http://tinyurl.com/6h7opyf for their full report)

Montana State University now has a satellite in space. Shortly before 4 a.m. Mountain time on October 28, a student-built satellite called Explorer-1 [Prime] roared into the sky on a NASA rocket.

Within three hours of launch, ham radio operators in France, England and The Netherlands had reported hearing from the satellite. A few minutes later, the satellite was heading over the North Pole toward

Alaska.

Approximately 125 students designed, built and tested the satellite over the past five years. The satellite, sponsored by the Montana Space Grant Consortium, was MSU's first satellite to make it into orbit. A previous satellite, called MEROPE, rode onboard a Russian rocket that crashed in 2006. A twin to Explorer-1 [Prime] was launched in March this year, but it failed to reach orbit because of an anomaly with the TAURUS-XL rocket that carried it.

But when NASA's satellite separated from the rocket Friday morning, the students started cheering. Half an hour later, when the Explorer-1 [Prime] sprang from its container and entered orbit, no one held back.

MSU's satellite was one of six university-built satellites onboard the Delta II rocket. All six are aluminum cubes weighing no more than 2.2 pounds and measuring about four inches per side. That standardized size allows university-built satellites, called "CubeSats," to fit into an enclosed container called a P-POD.

The Explorer-1 [Prime] will circle the Earth every 90 minutes in an 283 to 503 mile elliptical orbit.

MSU built the Explorer-1 [Prime] to replicate the scientific mission of the Explorer-1 mission which was launched on Jan. 31, 1958, and detected the existence of a band of energetic charged particles held in place by the Earth's magnetic field.

The band was named the Van Allen Radiation Belt after the late James Van Allen, who directed the design and creation of instruments on Explorer-1.

Satellite: Explorer-1[PRIME] Flight Unit 2
Downlink Freq: 437.505 MHz
EIRP: -0.7dBW
Modulation Scheme: Non-Coherent FSK
Protocol: KISS Custom
Baud Rate: 1200
http://ssel.montana.edu/e1p/

[ANS thanks Space-Travel.com for the above information]

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SB SAT @ AMSAT $ANS-310.06
Satellite Shorts From All Over

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+ ARISS School Contacts this week from the ISS will present additional opportunities to directly copy the downlink from orbit on 145.800 MHZ:

  Rehabilitationszentrum f[illegible]r Kinder und Jugendliche, Affoltern am Albis, Switzerland, direct via HB9TSO on Wed 2011-11-09 14:21:11 UTC 75 deg

  Donald P. Sutherland School, Nassau, New York, direct via N2SQU on Thu 2011-11-10 19:35:18 UTC 58 deg (via AJ9N)

+ A nice on-line satellite activity logger can be found at:
  http://dxworld.com/satlog.html (via WA4HFN)

+ The original TV news reports about the United Kingdom's first Amateur Radio satellites, UOSAT-1 (OSCAR-9) and UOSAT-2 (OSCAR-11), can now be seen on the web. In 'Talking Satellite', made Feb. 15, 1983, Martin Sweeting G3YJO talks about OSCAR-9 and it's speech synthesizer. In 'British Satellite', made February 7, 1984, Martin Sweeting G3YJO talks about OSCAR-11 due to be launched the following month. Links to both videos are posted on the Southgate ARC News website: http://tinyurl.com/64lvghw

+ A TV news report first broadcast Aug. 4, 1985 shows a contact between RSGB HQ in Potters Bar and Astronaut Tony England W0ORE in the Challenger shuttle on mission STS 51-F. Tony W0ORE was running a Motorola model MX-340 handheld 2-meter transceiver and a Robot Research model 1200C slow-scan television scan converter with an antenna fitted on the inside of one of Challengers windows. RSGB General Manager David Evans G3OUF was among those at the Society's station GB3RS. It is believed the voice contact was carried out on 145.550 MHz FM and the RSGB HQ team acheived a first with a two-way exchange of Slow Scan TV (SSTV) pictures. A link to the video is is posted on the Southgate ARC site at: http://tinyurl.com/673f4k8

+ Amateur Radio Satellite activity and instruction video by the Hams in Space Team at Bennett Spring State Park, Missouri is posted at:
  http://www.youtube.com/watch?feature&#65533;ayer_embedded&v&#65533;CgiljwQgQ
  The Hams in Space web page is at: http://hamsinspace.com/

+ Watch the laws of physics in action as the International Space Station is boosted into a higher orbit. While Expedition 29 Commander Mike Fossum and Flight Engineers Satoshi Furukawa and Sergei Volkov float freely the acceleration of the orbiting complex is evident. See: http://tinyurl.com/6gg996y (nasa.gov)

+ A 500+ page free book is available for download from the NASA Archives. "Read You Loud and Clear! ... The Story of NASA's Spaceflight Tracking and Data Network", by Sunny Tsiao can be found at:
  http://tinyurl.com/655t765 (nasa.gov)

+ The next Hudson Valley Satcom net is November 10 at 8PM EST (UTC-5). You can tune in via the 146.970 MHz Mt. Beacon repeater, PL 100.0 or via EchoLink on the N2EYH-L node. More info is available at: http://www.hvsatcom.org (Stu, WA2BSS)

[ANS thanks everyone for the above information]

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In addition to regular membership, AMSAT offers membership in the President's Club. Members of the President's Club, as sustaining donors to AMSAT Project Funds, will be eligible to receive additional benefits. Application forms are available from the AMSAT Office. And with that, please keep in mind the ham who was taken to the emergency room after accidentally swallowing a handful of coins. When the doctor asked the nurse about the patient's condition, the reply was, "No change yet!"

73,
This week's ANS Editor,
JoAnne Maenpaa, K9JKM